CLAIMS

1. A multilayer polymer film including two or more layers, which, at a first sealing temperature, forms a peelable bond and, at a second higher sealing temperature, forms a permanent bond, characterized in that one of the two outer layers has a matrix phase polymer system, whereby the matrix polymer is a polyethylene homopolymer, a polyethylene copolymer, a polypropylene homopolymer, or a polypropylene copolymer and the phase polymer is a styrene ethylene/butylene styrene triblock polymer (SEBS) with a styrene ethylene/butylene diblock component (SEB), a styrene ethylene/propylene styrene triblock polymer (SEPS), a styrene butadiene styrene triblock polymer (SBS), and/or a styrene isoprene styrene triblock polymer (SIS), and/or ethylene α-olefin copolymer.

2. The multilayer film according to Claim 1, characterized in that the multilayer film is a co-extruded multilayer film.

3. The multilayer film according to Claim 1 ~~or 2~~, characterized in that the multilayer film has two to seven layers.

4. The multilayer film according to ~~one of Claims 1 through 3~~, characterized in that the phase polymer may also have a processing aid.

5. The multilayer film according to ~~one of Claims 1 through 4~~, characterized in that the proportion of the phase polymer is in the range from 1 to 40 wt.-%, based on the matrix-phase polymer system.

6. The multilayer film according to ~~one of Claims 1 through 5~~, characterized in that the multilayer film has a gas barrier for oxygen and carbon dioxide as well as a water vapor barrier layer.

7. A multichamber medical bag (1) made of a polymer material for preparation of medical mixed solutions, which has at least two chambers (8 and 9), which are separated from each other by a sealed separation zone (7) to be opened and are sealed in the outer border zone (2, 3), whereby in the seam of the outer border zone at least one tube (4) is provided in at least one chamber, characterized in that it is fabricated from a multilayer polymer film according to Claims 1 through 6.

8. The multichamber bag according to Claim 7, characterized in that the seam is separable in the separation zone (7) with a force which is in the range from 5 to 20 N and the seam in the outer border zone (2, 3) is inseparable.

9. The multichamber bag according to ~~one of Claims 7 through 8~~, characterized in that it is heat sterilizable.

10. The multichamber bag according to one of Claims 7 through 9, characterized in that in addition to the discharge tube (4) each chamber to be filled also has at least one filling tube (5, 6), which is disposed in the seam of the outer border zone (2, 3).

11. The multichamber bag according to ~~one of the preceding claims~~, characterized in that the outer wall in the chamber separation zone is provided with at

least one tear tab (10), preferably with two tear tabs (10).

12. Use of a multichamber medical bag according to ~~one of Claims 7 through 11~~ claim 7 for preparation of mixed solutions for dialysis, infusion, or nutrition.

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